PATENT COOPERATION TREATY

PCT

TRANSLATION INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference CZ03-106			FOR FURTHER ACTION See Form PCT/IPEA/416		See Form PCT/IPEA/416				
International application No.			ernational filing date ((day/month/year)	Priority date (day/month/year)				
PCT/J	TP2004/0042	61 2	26.03.2004		28.03.2003				
International Patent Classification (IPC) or national classification and IPC									
G01N21/21, G01J4/04									
Applicant									
CITIZEN WATCH CO., LTD.									
un	This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.								
2. TI	his REPORT consists o	fatotal of 5		sheets, including	g this cover sheet.				
3. Tl	his report is also accom	panied by ANNE	EXES, comprising:						
a.	(sent to the a	oplicant and to th	he International Burea	(u) a total of 10	sheets, as follows:				
	1 / 1	-		-	mended and are the basis for this report and/or				
	sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).								
	sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.								
,			1 1 . 6.6						
b.	(sent to the Ii	iternational Bure	eau only) a total of (inc	licate type and number	r of electronic carrier(s))				
			111.6		, containing a sequence listing and/or tables				
		in computer rea the Administrativ		idicated in the Supple	mental Box Relating to Sequence Listing (see				
4. Tl	his report contains indi	cations relating to	o the following items:						
	Box No. I	Basis of the repo	ort						
L	Box No. II	Priority							
	Box No. III	Non-establishme	ent of opinion with reg	gard to novelty, inventi	ive step and industrial applicability				
	Box No. IV	Lack of unity of	finvention						
	Box No. V Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement								
	Box No. VI Certain documents cited								
	Box No. VII	Certain defects i	in the international app	plication					
	Box No. VIII Certain observations on the international application								
Date of submission of the demand			Da	te of completion of thi	is report				
				•					
Name and mailing address of the IPEA/JP			Au	thorized officer					
Facsimile No.			Te	lephone No.					

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.
PCT/JP2004/004261

Box	No. I	Basis of the report		
1.		n regard to the language, this report is based on the internatio cated under this item.	nal application in the language in	which it was filed, unless otherwise
		This report is based on translations from the original langua which is the language of a translation furnished for the purp	· -	,
		international search (Rule 12.3 and 23.1(b))		
		publication of the international application (Rule 12.4 international preliminary examination (Rule 55.2 and		
2.	With	h regard to the elements of the international application, this	,	sheets which have been furnished to the
		iving Office in response to an invitation under Article 14 ar report):	e referred to in this report as "o	originally filed" and are not annexed to
		the international application as originally filed/furnished		
	\boxtimes	the description:		
		pages		as originally filed/furnished
		pages* _5/1,6,8	received by this Authority on	28.01.2005
		pages* _5,9-9/1	received by this Authority on	27.04.2005
	\boxtimes	the claims:		
		nos. 4-12,14-15		as originally filed/furnished
		nos.*	as amended (togethe	er with any statement) under Article 19
		nos.* 2-3,13	received by this Authority on	28.01.2005
		nos.* _ 1,16	received by this Authority on	27.04.2005
	\boxtimes	the drawings:		
		sheets figures 1-19		as originally filed/furnished
		sheets*	received by this Authority on	
		sheets*	received by this Authority on	
		a sequence listing and/or any related table(s) – see Supplem	ental Box Relating to Sequence I	isting.
3.		The amendments have resulted in the cancellation of:		
		the description, pages		
		the claims, nos.		
		the drawings, sheets/figs		
		the sequence listing (specify):		
		any table(s) related to sequence listing (specify):		
4.		This report has been established as if (some of) the amend they have been considered to go beyond the disclosure as fi		
		the description, pages		
		the claims, nos.		
		the drawings, sheets/figs		
		the sequence listing (specify):		
		any table(s) related to sequence listing (specify):		
*	If ite	em 4 applies, some or all of those sheets may be marked "sup	erseded."	

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Box No. V		Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement				
1.	Statement					
	Novelty (N)	Claims	1-16	YES	
			Claims		NO	
	Inventive s	tep (IS)	Claims	1-16	YES	
			Claims		NO	
	Industrial a	applicability (IA)	Claims	1-16	YES	
			Claims		_ NO	

- 2. Citations and explanations (Rule 70.7)
 - (1) Novelty and Inventive Step

Document 1: JP 2002-277387 A (Citizen Watch Co., Ltd.), 25 September 2002

Document 2: JP 6-118359 A (Matsushita Electric Industrial Co., Ltd.), 28 April 1994

Claims 1 to 16

The inventions set forth in claims 1 to 16 are novel and involve an inventive step in relation to the documents that are cited in the international search report.

In particular, it would not be easy for a person skilled in the art to conceive of the feature wherein the first and second phase modulation sections "are configured so that changes in the amounts of phase modulation cancel one another out" because document 1 (which describes an optical rotation measurement device employing liquid crystal elements that implement phase modulation) does not disclose phase modulation sections that fulfill such a condition, and because the feature in question is not disclosed in document 2, which describes

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implementing phase modulation by means of a pair of liquid crystal cells (in document 2, the sum of the amounts of phase modulation is applied to the polarized light that traverses the pair of liquid crystal cells).

(2) Industrial Applicability

The inventions set forth in claims 1 to 16 clearly fulfill the requirement of industrial applicability.

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Box No. VIII Certain observations on the international application

The following observations on the clarity of the claims, description, and drawings or on the question whether the claims are fully supported by the description, are made:

(1)

Claims 1, 2 and 12 do not stipulate that the phase modulation means are liquid crystal elements; however, it is considered to be impossible to use phase modulation means other than liquid crystal elements in the light of the disclosures in the embodiments and on page 4 (lines 15 to 26) of the description of the present application. Such being the case, claims 1, 2 and 12 are not fully supported by the description.

(2) In cases when claim 15 does not indirectly cite claim 2, the relationships between the "offset signal" and the other technical features are not clear from the disclosure in claim 15.